

Balancing and Reaction Type PRACTICE

Law of Conservation of Mass (or Matter) states that matter cannot be created or destroyed only rearranged through chemical reactions. This means that in a chemical reaction the amount of reactant you start with must equal the amount of product that you end with. This requires the chemical equation representing the chemical reaction to be balanced.

Balancing chemical equations involves counting the atoms of each element and making sure that they are equal on both sides. If they are, the equation is said to be “balanced.” If not, then the equation must be balanced **by adding coefficients only**. NEVER change the subscript number of a formula when balancing, this changes the compound.

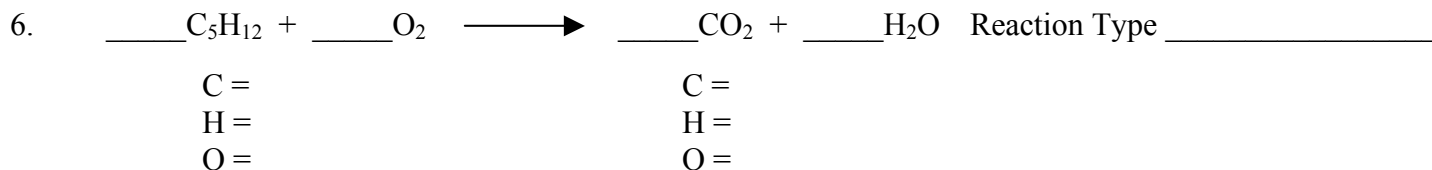
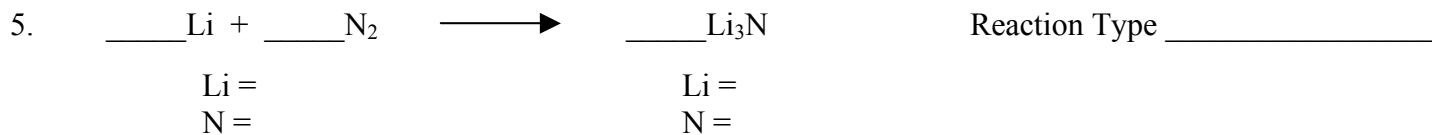
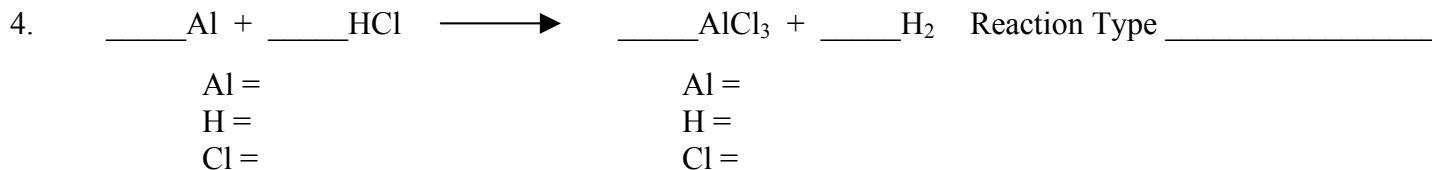
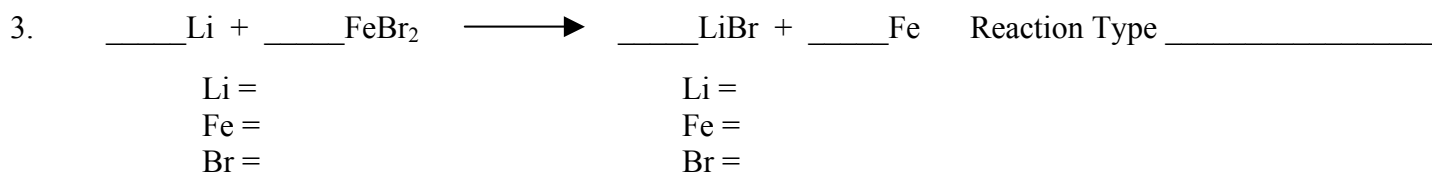
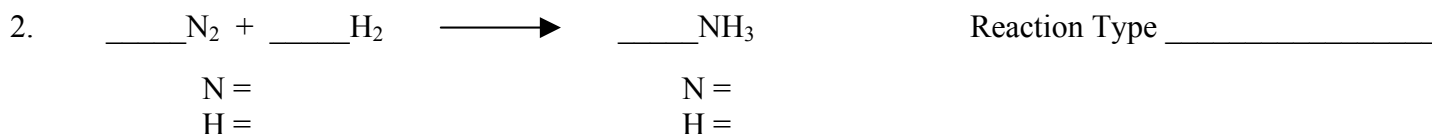
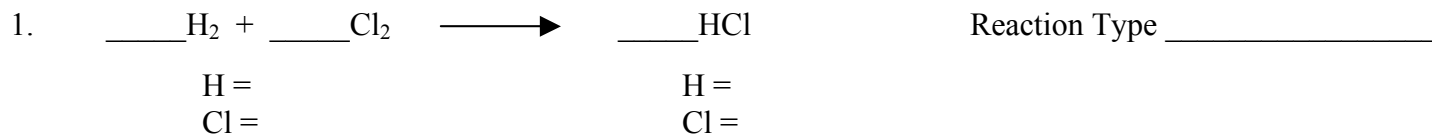
There are four main types of reactions that have been discussed in class. Using the example provided for a synthesis reaction, write a brief description of what happens in each of the other types of reactions.

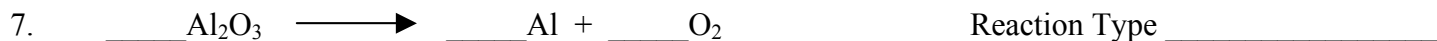
Synthesis: In a synthesis reaction two simple substances are coming together to form a more complex compound

Decomposition:

Single replacement:

Double replacement:





Al = 4
O = 6

Al =
O =



Sn =
O =
H =

Sn =
O =
H =



N =
H =
O =

N =
H =
O =



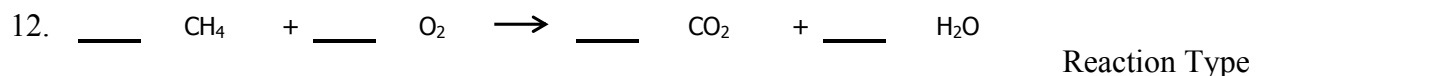
Se =
Cl =
O =

Se =
Cl =
O =



C =
H =
O =

C =
H =
O =



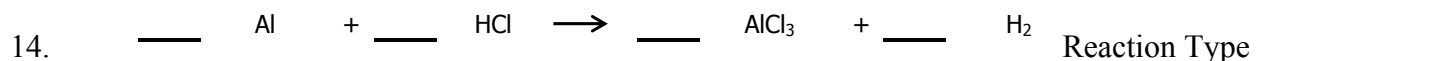
C =
H =
O =

C =
H =
O =



Al =
O =

Al =
O =



Al =
H =
Cl =

Al =
H =
Cl =



H =
P =
O =

H =
P =
O =